

WHAT IS CLAIMED IS:

1. A damping device, comprising:

a support base;

a housing secured on a side of the support base and having an inside

5 formed with a receiving chamber, the housing including a first shell secured on
the support base, a middle shell combined with the first shell and having a
center formed with a mounting ring, and a second shell combined with the
middle shell;

a pivot shaft rotatably mounted on the support base;

10 a resistance wheel secured on the pivot shaft to rotate therewith;

a magnetic disk mounted in the receiving chamber of the housing and
secure on an end of the pivot shaft to rotate therewith;

a fixing disk movably mounted on the mounting ring of the middle
shell and having a periphery provided with a plurality of magnetic members
15 aligned with the magnetic disk, the fixing disk having a center formed with a
receiving recess having a wall formed with two positioning holes;

an action block rotatably mounted in the receiving recess of the
fixing disk and having a periphery formed with two symmetrical guide slots;

two urging balls each mounted in a respective one of the two
20 positioning holes of the fixing disk and each slidably mounted in a respective
one of the two guide slots of the action block; and

a motor secured on an outer wall of the middle shell of the housing and having a first end provided with a rotatable spindle extended through the fixing disk and fixed in the action block for rotating the action block.

2. The damping device in accordance with claim 1, wherein each of
5 the two guide slots of the action block is arc-shaped.

3. The damping device in accordance with claim 1, wherein each of the two guide slots of the action block has a first end and a second end having a depth smaller than that of the first end.

4. The damping device in accordance with claim 3, wherein the depth
10 of each of the two guide slots of the action block is gradually decreased from the first end to the second end.

5. The damping device in accordance with claim 1, wherein the support base is substantially U-shaped.

6. The damping device in accordance with claim 1, wherein the
15 support base has two sides provided with two bearings, and the pivot shaft is extended through the two bearings.

7. The damping device in accordance with claim 1, wherein the first shell of the housing is substantially U-shaped.

8. The damping device in accordance with claim 1, wherein the
20 second shell of the housing is substantially U-shaped.

9. The damping device in accordance with claim 1, wherein the middle shell of the housing is substantially U-shaped.

10. The damping device in accordance with claim 1, wherein the second shell of the housing has an inside provided with a substantially U-shaped infrared sensor, and the motor has a second end provided with a rotatable code disk having a periphery received in the infrared sensor.

5 11. The damping device in accordance with claim 1, wherein the magnetic members of the fixing disk are arranged in an annular manner.

12. The damping device in accordance with claim 1, further comprising an elastic member mounted on the mounting ring of the middle shell and urged between the fixing disk and the middle shell for pushing the
10 fixing disk toward the magnetic disk.

13. The damping device in accordance with claim 1, further comprising an electronic instrument connected to the motor.

14. The damping device in accordance with claim 3, wherein when each of the two urging balls is received in the first end of a respective one of the
15 two guide slots of the action block, the distance between the magnetic members of the fixing disk and the magnetic disk has the minimum value.

15. The damping device in accordance with claim 3, wherein when each of the two urging balls is received in the shallower second end of a respective one of the two guide slots of the action block, the distance between
20 the magnetic members of the fixing disk and the magnetic disk has the maximum value.